REMARKS

Claims 1-16 are pending in this application. For purposes of expedition, claims 1-9 have been amended in several particulars for purposes of clarity and brevity while Claims 9-16 have been newly added in accordance with current Office policy, to further and alternatively define Applicants' disclosed invention and to assist the Examiner to expedite compact prosecution of the instant application.

Claims 1-8 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Tsutomu, JP05-2727950, in view of Sato et al., JP09-0796454 and O'Leary et al., U.S. Patent No. 5,699,221 for reasons stated on pages 2-3 of the Office Action (Paper No. 06160401). This rejection is respectfully traversed, however. Applicants respectfully submit that features of Applicants' base claim 1 and its dependent claims 2-8 are **not** disclosed or suggested by Tsutomu, JP05-2727950, Sato et al., JP09-0796454 and O'Leary et al., U.S. Patent No. 5,699,221, whether taken individually or in combination with any other references of record. Therefore, Applicants respectfully request the Examiner to reconsider and withdraw this rejection for the following reasons.

Base claim 1 has been amended to incorporate limitations of dependent claim 7, i.e., incorporating the specific of a radio signal transmitted from the indoor conversion unit or the outdoor conversion unit for wireless communication. Specifically, base claim 1 defines an air-conditioning system comprising:

> a plurality of indoor units and a plurality of outdoor units each including a compressor, operatively controlled to transmit and receive operation data;
>
> an outdoor transmission/receiving unit included in each of said outdoor units, for transmitting by superposing operation data on an outdoor power line for supplying power to said outdoor units and receiving said operation data superposed on said outdoor power line;

an indoor transmission/receiving unit included in each of said indoor units, for transmitting by superposing operation data on an indoor power line for supplying power to said indoor units and receiving said operation data superposed on said indoor power line;

an outdoor conversion unit for transmitting a radio signal produced by converting said operation data superposed on said outdoor power line into the radio signal, and receiving and superposing a radio signal on said outdoor power line; and

an indoor conversion unit for transmitting a radio signal produced by converting said operation data superposed on said indoor power line into the radio signal and receiving and superposing a radio signal on said indoor power line,

wherein an identification signal is assigned to each of said outdoor and indoor conversion units, and said radio signal contains operation data and a flag information representing the identification signal, and

wherein each of said outdoor and indoor conversion units determines whether a received radio signal is required to be received from a desired conversion unit based on the identification signal contained in the received radio signal, and when the received radio signal is required to be received from the desired conversion unit, samples and converts the received radio signal into a power-superposed signal.

As expressly defined in Applicants' base claim 1, an outdoor conversion unit (6A) and an indoor conversion unit (6B), as shown, for example, in FIG. 1 and FIG. 3, are provided on the power lines (3, 4) and connected to the outdoor unit (1) and the indoor unit (2). Each of the outdoor and indoor conversion units (6A, 6B) sends and receives operation data of the outdoor unit (1) or the indoor unit (2) via the power line (3/4). The operation data signal is superposed on the power line (3/4). The operation data is transmitted from the outdoor unit (1, 5A) to the indoor unit (4, 5B) in the manner as follows.

The outdoor conversion unit (6A) produces and transmits a radio signal which contains its own identification signal and operation data extracted from the superimposed signal from the outdoor unit (1, 5A) via the power line (3). The indoor conversion unit (6B) receives the radio signal containing the identification signal and

operation data of the outdoor unit (1). If the identification signal in the received radio signal is the same as the identification signal assigned to of the indoor conversion unit (6B), the operation data in the received radio signal is converted into a signal superposed on the power line (4) and send to the indoor unit (2, 5B). Likewise, the operation data is transmitted from the indoor unit (4, 5B) to the outdoor unit (1, 5A) in the same manner as described above but through the reverse route.

As described, the combination of the wire communication with the superposed signal, via the power line, and the wireless communication with the radio signal is used for transmission/reception of operation data between the outdoor unit (1) and the corresponding indoor unit (4), as shown, for example, in FIG. 1 and FIG. 3. For wireless communication, it should be noted that any receiver can receive the radio signal. However, an unique identification signal is necessary to identify the outdoor unit or indoor unit for receiving the radio signal from a proper or desired outdoor unit or indoor unit. As a result, even if the air conditioning system is large scale in terms of construction, the maintenance/management and the system development can be advantageously facilitated regardless of the wiring distance or the difference of the voltage or the number of phases between the outdoor unit and the indoor unit.

In contrast to Applicants' base claim 1, Tsutomu '795, as a primary reference, discloses an air-conditioning system wherein a signal is transmitted through a power line between the indoor unit and the outdoor unit. However, Tsutomu '795 does **not** teach the use of a unique identification signal and radio signal for data communication between the indoor unit and the outdoor unit of the air-conditioning system. More importantly, Tsutomu '795 does **not** disclose or suggest the use of the combination of wire communication and the wireless communication for

transmission/reception of operation data between the outdoor unit and the corresponding indoor unit.

As secondary references, Sato '653 and O'Leary '221 do **not** remedy the noted deficiencies of Tsutomu '795 in order to arrive at Applicants' base claim 1 and its dependent claims 2-9. This is because Sato '654 only discloses the use of a wire communication network (LAN: local area network) for enabling connection and communication between a plurality of indoor units and outdoor units of an air-conditioning system. Again, Sato '654 does **not** disclose or suggest the use of a unique identification signal and radio signal for data communication between the indoor unit and the outdoor unit of the air-conditioning system. This is because in a local area network (LAN), a unique identification signal is not required. Data signal of LAN protocol always includes a destination address number for delivery to a proper destination. More importantly, Sato '654 does **not** teach the use of the combination of wire communication and the wireless communication for transmission/reception of operation data between the outdoor unit and the corresponding indoor unit.

Likewise, O'Leary '221 only discloses the use of a support bracket for an electrical unit, which is not analogous to Applicants' claimed "air-conditioning system". Moreover, O'Leary '221 merely disclose that an auxiliary unit may be activated by a telephone signal. Like Sato '654, O'Leary '211 does **not** disclose or suggest the use of a unique identification signal and radio signal for data communication between the indoor unit and the outdoor unit of the air-conditioning system. Likewise, O'Leary '221 does **not** disclose or suggest the use of the combination of wire communication and the wireless communication for

transmission/reception of operation data between the outdoor unit and the corresponding indoor unit of an air-conditioning system, as defined in Applicants' base claim 1.

In order to establish a *prima facie* case of obviousness under 35 U.S.C. §103, the Examiner must show that the prior art reference (or references when combined) must teach or suggest all the claim limitations, and that there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skilled in the art, to modify the reference or to combine reference teachings, provided with a reasonable expectation of success, in order to arrive at the Applicants' claimed invention. The requisite motivation must stem from some teaching or suggestion to make the claimed combination must be found in the prior art, and **not** based on Applicants' disclosure. In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). See MPEP 2143. In other words, all the claim limitations must be disclosed or suggested by the prior art. In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). "Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching, suggestion or incentive supporting the combination." ACS Hospital System, Inc v. Montefiore Hospital, 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). The Examiner must point to something in the prior art that suggests in some way a modification of a particular reference or a combination of references in order to arrive at Applicants' claimed invention. Absent such a showing, the Examiner has improperly used Applicants' disclosure as an instruction book on how to reconstruct to the prior art to arrive at Applicants' claimed invention. Furthermore, any deficiencies in the cited references cannot be remedied with conclusions about

what is "basic knowledge" or "common knowledge". See In re Lee, 61 USPQ 2d 1430 (Fed. Cir. 2002).

In the present situation, Tsutomu, JP05-2727950, Sato et al., JP09-0796454 and O'Leary et al., U.S. Patent No. 5,699,221, whether taken individually or in combination, fail to disclose and suggest key features of Applicants' base claim 1 and its dependent claims 2-8. Therefore, Applicants respectfully request that the rejection of claims 1-8 be withdrawn.

Claims 9-16 have been newly added to alternatively define Applicants' disclosed invention over the prior art of record. These claims are believed to be allowable at least for the same reasons discussed against all the outstanding rejections of the instant application. No fee is incurred by the addition of claims 9-16.

In view of the foregoing amendments, arguments and remarks, all claims are deemed to be allowable and this application is believed to be in condition to be passed to issue. Should any questions remain unresolved, the Examiner is requested to telephone Applicants' attorney at the Washington DC area office at (703) 312-6600.

INTERVIEW:

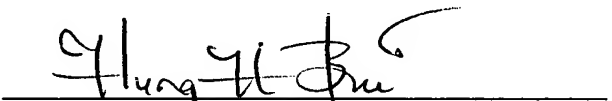
In the interest of expediting prosecution of the present application, Applicants respectfully request that an Examiner interview be scheduled and conducted. In accordance with such interview request, Applicants respectfully request that the Examiner, after review of the present Amendment, contact the undersigned local Washington, D.C. area attorney at the local Washington, D.C. telephone number (703) 312-6600 for scheduling an Examiner interview, or alternatively, refrain from

issuing a further action in the above-identified application as the undersigned attorneys will be telephoning the Examiner shortly after the filing date of this Amendment in order to schedule an Examiner interview. Applicants thank the Examiner in advance for such considerations. In the event that this Amendment, in and of itself, is sufficient to place the application in condition for allowance, no Examiner interview may be necessary.

To the extent necessary, Applicants petition for an extension of time under 37 CFR §1.136. Please charge any shortage of fees due in connection with the filing of this paper, including extension of time fees, to the Deposit Account of Antonelli, Terry, Stout & Kraus, No. 01-2135 (Application No. 500.42827X00), and please credit any excess fees to said deposit account.

Respectfully submitted,

ANTONELLI, TERRY, STOUT & KRAUS, LLP

By 

Hung H. Bui (Reg. No. 40,415)
Attorney for Applicant(s)

HHB:btd

1300 North Seventeenth Street, Suite 1800
Arlington, Virginia 22209
Tel.: (703) 312-6600
Fax: (703) 312-6666